

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**REVOCATION OF POWER OF
ATTORNEY WITH
NEW POWER OF ATTORNEY
AND
CHANGE OF CORRESPONDENCE ADDRESS**

As assignee of record of the entire interest of the patent applications and/or patents identified in Appendix A, all powers of attorney previously given are hereby revoked, and the following attorneys and/or agents are hereby appointed to prosecute and transact all business in the U.S. Patent and Trademark Office connected therewith.

Joseph A. Capraro, Jr.	Reg. No.: 36,471	John C. Stellabotte	Reg. No.: 47,969
Steven M. Bauer	Reg. No.: 31,481	Mark A. Catan	Reg. No.: 38,720
Jennifer A. Camacho	Reg. No.: 43,526	Alan Federbush	Reg. No.: 37,619
Gerald E. Worth	Reg. No.: 45,238	Nolan Goldberg	Reg. No.: 54,126
Christopher H. Chung	Reg. No.: 50,351	Louis Greco	Reg. No.: 41,799
David J. Cerveny	Reg. No.: 44,600	Tzvi Hirshaut	Reg. No.: 38,732
Jeremy P. Ozcek	Reg. No.: 50,794	Sergey Kolmykov	Reg. No.: 47,713
Kenneth Rubenstein	Reg. No.: 30,586	Tiffany A. Levato	Reg. No.: 50,160
Charles Guttman	Reg. No.: 29,161	Robert S. Mayer	Reg. No.: 38,544
James H. Shalek	Reg. No.: 29,749	Silvana M. Merlino	Reg. No.: 44,237
Anthony C. Coles	Reg. No.: 34,139	Baldassare Vinti	Reg. No.: 43,970
Evan L. Kahn	Reg. No.: 35,912	Silvia Salvadori	Reg. No.: 48,265
Kristen H. Neuman	Reg. No.: 35,530	Alexander Migirov	Reg. No.: 53,326

Assignee also hereby grants additional Power of Attorney to the attorneys and/or agents named above to file and prosecute foreign national patent applications in any and all countries of the world, regional patent applications under the European Patent Convention and/or international applications under the Patent Cooperation Treaty based upon the patent applications identified in Appendix A, including a power to meet all designated office requirements for designated states.

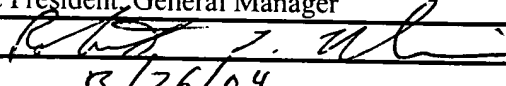
All future correspondence should be sent to :

Proskauer Rose LLP
One International Place; 14th Floor
Boston, MA 02110-2600.

Please assign PTO Customer Number 42532 to all of the patents applications identified in Appendix A.

The assignee of record of the entire interest of the patent applications and/or patents identified in Appendix A is Applied Science and Technology, Inc., organized and existing under the laws of the state of Delaware, having a usual place of business at 90 Industrial Way, Wilmington, MA 01887-4610.

SIGNATURE of Assignee of Record

Name	Robert Klimm
Title	Vice President, General Manager
Signature	
Date	13/26/04

COPY

Atty. Docket No. ASX-015
(473/19)

ASSIGNMENT

WHEREAS, We, Donald K. Smith, Xing Chen, William M. Holber and Eric Georgelis have invented one or more improvements in:

TOROIDAL LOW-FIELD REACTIVE GAS SOURCE

described in an application (or provisional application) for Letters Patent of the United States:

☐ identified by Attorney Docket No. , and/or executed by us of even date herewith and about to be filed in the United States Patent Office;

☒ Serial No. 08/883,281 filed in the United States Patent Office on June 26, 1997; and

WHEREAS, Applied Science and Technology, Inc. (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the ~~Commonwealth of Massachusetts~~ ^{state of Delaware} (inc 9/4/01), and having a usual place of business at 35 Cabot Road, Woburn, Massachusetts 01801 desires to acquire an interest therein, in accordance with agreements duly entered into with us;

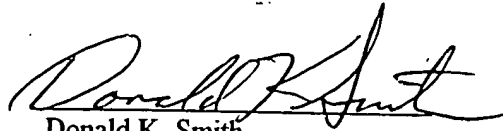
NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, our entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to the inventions described in said application, together with our entire right, title and interest in and to said application and such Letters Patent as may issue thereon or claim priority under international convention; said inventions, applications and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all of our rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of our entire right, title and interest in and to said inventions, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all Letters Patent to ASSIGNEE for its own name as assignee of our entire right, title and interest therein.

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns, and legal representatives, but at its or their expense and charges, including: the execution of applications for patents in foreign countries; the execution of substitution, reissue, divisional or continuation applications; and preliminary or other statements or the giving of testimony in any interference or other proceeding in which said inventions or any application or patent directed thereto may be involved; and we further hereby authorize ASSIGNEE or its attorneys or agents to insert the correct serial number and filing date into this assignment, if none is indicated on that date of our execution of this assignment;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

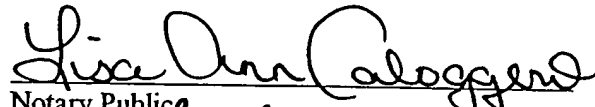
IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor:

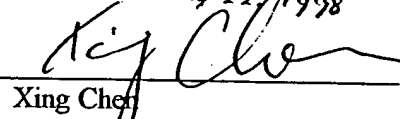

Donald K. Smith

Commonwealth of Massachusetts)
County of Middlesex) ss

Subscribed and sworn to before me, by the above-named Donald K. Smith this 21st day of August, 1997.

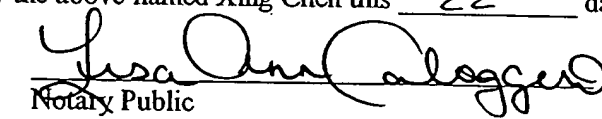

Notary Public
My Commission Expires: May 22, 1998
Lisa Ann Caloggero
Notary Public
Commission Expires May 22, 1998

Inventor:


Xing Chen

Commonwealth of Massachusetts)
County of Middlesex) ss

Subscribed and sworn to before me, by the above-named Xing Chen this 22 day of August, 1997.


Notary Public
My Commission Expires: May 22, 1998
Lisa Ann Caloggero
Notary Public
My Commission Expires May 22, 1998

Inventor:

William M. Holber

William M. Holber

Commonwealth of Massachusetts)

County of Middlesex) ss

Subscribed and sworn to before me, by the above-named William M. Holber this 25th day of August, 1997.

Lisa Ann Caloggero
Notary Public

My Commission Expires:

Lisa Ann Caloggero
Notary Public

My Commission Expires May 22, 1998

Inventor:

Eric Georgelis
Eric Georgelis

Commonwealth of Massachusetts)

County of Middlesex) ss

Subscribed and sworn to before me, by the above-named Eric Georgelis this 22nd day of August, 1997.

Lisa Ann Caloggero
Notary Public

My Commission Expires:

Lisa Ann Caloggero
Notary Public
My Commission Expires May 22, 1998